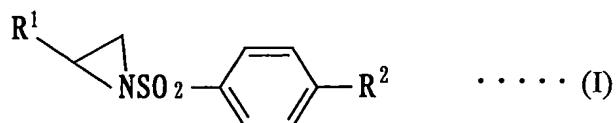
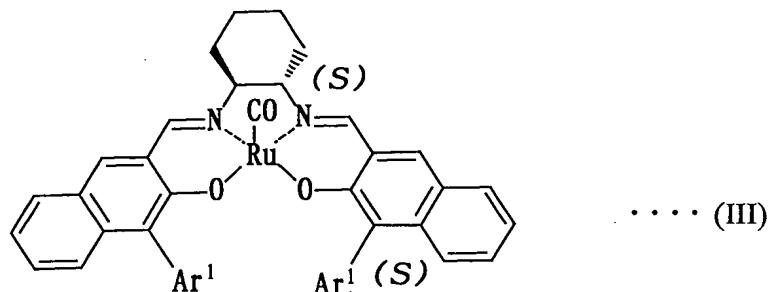
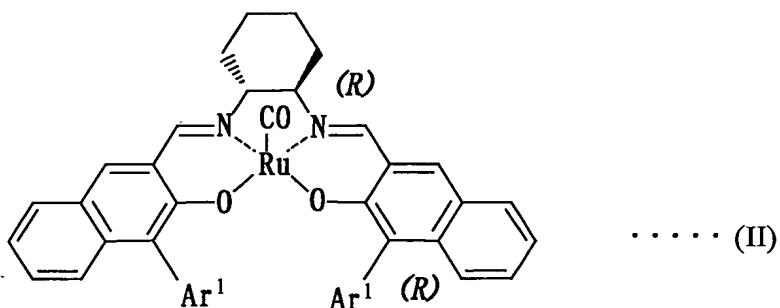


What is claimed is:

1. A method of producing an optically active aziridine compound represented by the following formula (I):



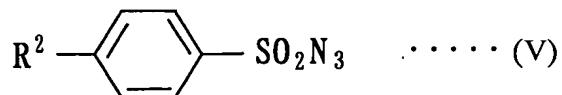
(wherein R¹ is an alkenyl group having a carbon number of 2 to 20, an alkynyl group having a carbon number of 2 to 20 or an aryl group having a carbon number of 6 to 20 provided that a hydrogen atom in these alkenyl group, alkynyl group and aryl group may be substituted with a halogen atom or a nitro group, and R² is a hydrogen atom, a halogen atom, a substituted or non-substituted alkyl group having a carbon number of 1 to 4, or a substituted or non-substituted alkoxy group having a carbon number of 1 to 4), which comprises using as a catalyst an optically active Ru(salen)(CO) complex represented by the following formula (II) or (III):



(wherein Ar¹ is independently an aryl group having a carbon number of 10 to 16), and subjecting an olefin represented by the following formula (IV):

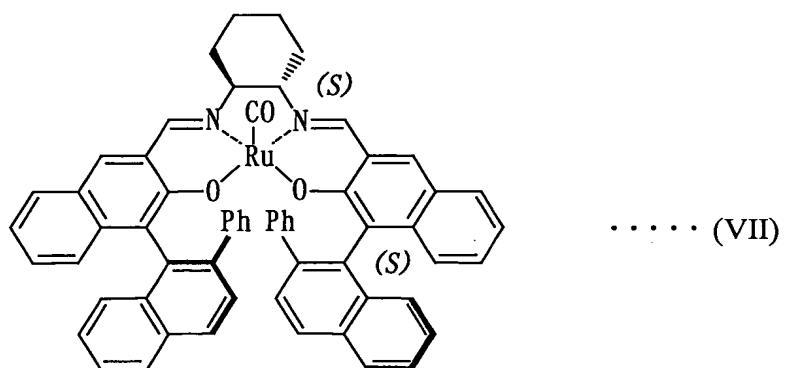
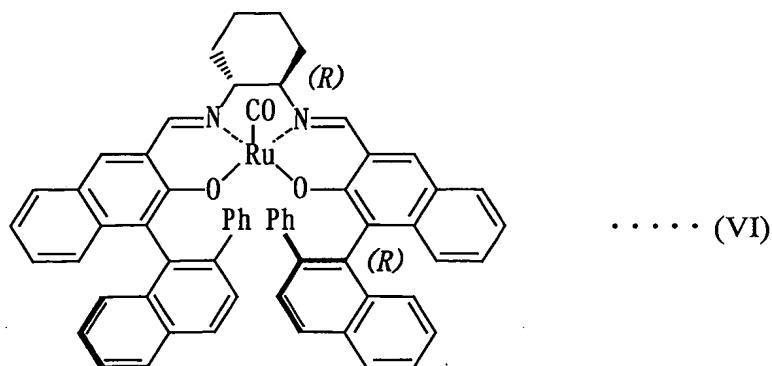


(wherein R¹ is the same meaning as mentioned above) to an asymmetric aziridination with an arylsulfonyl azide compound represented by the following formula (V):



(wherein R² is the same meaning as mentioned above).

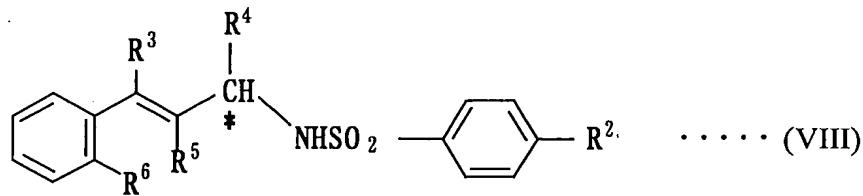
2. A method according to claim 1, wherein the Ru(salen)(CO) complex is represented by the following formula (VI) or (VII).



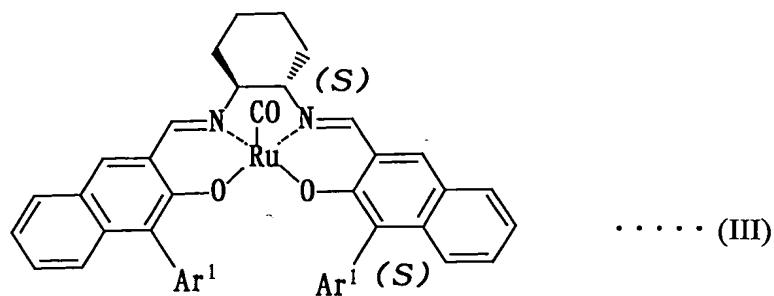
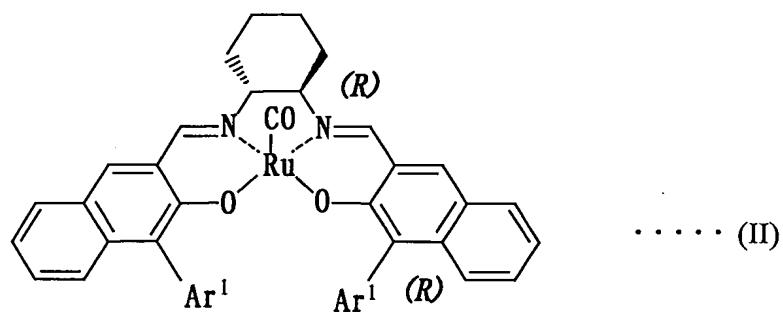
3. A method according to claim 1, wherein R¹ in the olefin of the formula (IV) is phenyl group, p-bromophenyl group, p-nitrophenyl group, phenylethynyl group, 2-naphthyl group, 1-phenylvinyl group or p-(1-cyclohexenyl)-phenyl group.

4. A method according to claim 1, wherein the arylsulfonyl azide compound of the formula (V) is p-toluenesulfonyl azide (p-CH₃C₆H₄SO₂N₃).

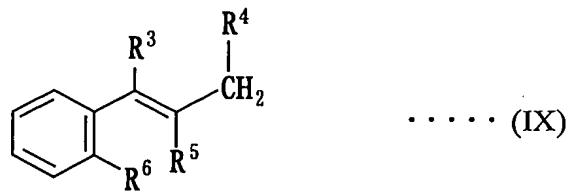
5. A method of producing an optically active amine compound represented by the following formula (VIII):



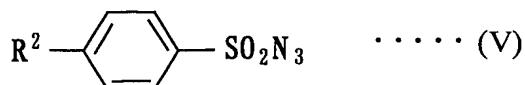
(wherein R^2 is a hydrogen atom, a halogen atom, a substituted or non-substituted alkyl group having a carbon number of 1 to 4, or a substituted or non-substituted alkoxy group having a carbon number of 1 to 4, and R^3 , R^4 , R^5 and R^6 are independently a hydrogen atom, or a linear or branched alkyl group having a carbon number of 1 to 20, provided that R^3 may combine with R^4 and R^5 may combine with R^6 to form a 5-member ring or a 6-member ring), which comprises using as a catalyst an optically active Ru(salen)(CO) complex represented by the following formula (II) or (III):



(wherein Ar^1 is independently an aryl group having a carbon number of 10 to 16), and subjecting an olefin expressed by the following formula (IX):

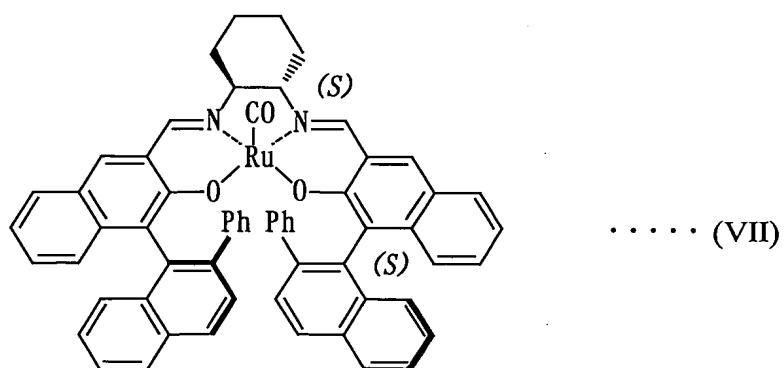
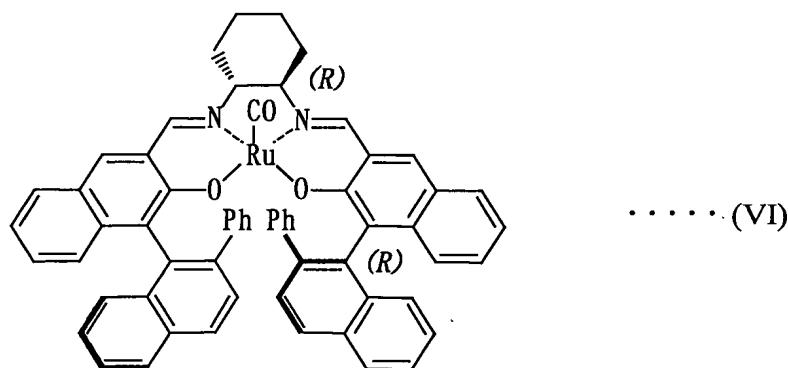


(wherein each of R³, R⁴, R⁵ and R⁶ is the same meaning as mentioned above) to an asymmetric amination with an arylsulfonyl azide compound expressed by the following formula (V):

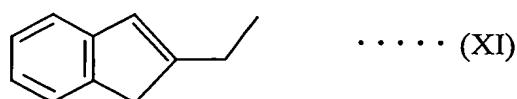
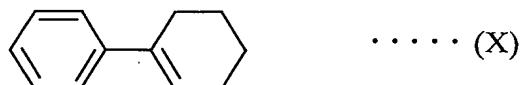


(wherein R² is the same meaning as mentioned above).

6. A method according to claim 5, wherein the Ru(salen)(CO) complex is represented by the following formula (VI) or (VII).



7. A method according to claim 5, wherein the olefin of the formula (IX) is represented by the following formula (X) or (XI).



8. A method according to claim 5, wherein the arylsulfonyl azide compound of the formula (V) is p-toluenesulfonyl azide ($p\text{-CH}_3\text{C}_6\text{H}_4\text{SO}_2\text{N}_3$).